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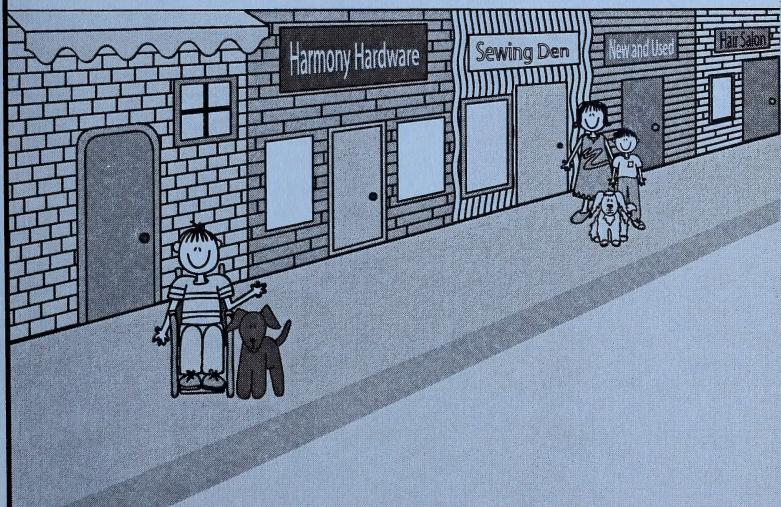


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GRADE THREE MATHEMATICS: MODULE 3

PATTERNS EVERYWHERE

Home Instructor's Guide: Days 1-9
and
Assignment Booklet 3A



Learning
Technologies
Branch

Alberta
LEARNING

Grade Three Mathematics

Module 3: Patterns Everywhere

Home Instructor's Guide: Days 1–9 and Assignment Booklet 3A

Learning Technologies Branch

ISBN 0-7741-2307-9

| | |
|-------------------------------|---|
| This document is intended for | |
| Students | ✓ |
| Teachers | ✓ |
| Administrators | |
| Home Instructors | ✓ |
| General Public | |
| Other | |



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MODULE 3: PATTERNS EVERYWHERE

Module 3 examines patterns in numbers and in everyday life. It is important that students learn to recognize and describe patterns as it helps them to develop reasoning and communication skills.

Examining patterns also allows students to understand the relationship between numbers. This helps them form a basis for understanding multiplication and division.

In this module your student will work on sorting activities, concrete and picture patterns, and number patterns.

Sorting activities provide the student with opportunities to develop reasoning skills. The student learns to look for more than one attribute as objects are sorted. Developing a “sorting rule” or description of how a set was sorted encourages divergent thinking and communication skills.

The emphasis on reasoning and communication continues as your student works with concrete and picture patterns. The student learns to recognize a pattern and tell how it repeats. As you travel or shop, you may want to help your student find patterns in the environment and discuss how each pattern repeats.

The pervasiveness of patterns in mathematics makes it essential for the student to be able to identify and discuss number patterns. The student learns to count forward and backward by 2s, 5s, 10s, 25s, and 100s from random numbers. Other number patterns are also discussed. A hundred chart is used to help the student visualize and express number patterns.

A calculator is used extensively in this module. Students use the calculator to extend patterns and make predictions.

DAILY SUMMARY

DAY 1: Various sorting activities involving buttons and coins are introduced in this lesson. The student finds different ways to sort objects and makes up “sorting rules.” To extend this lesson, you may wish to gather other related objects, such as natural objects, small toys, or clothing. Have the student sort the objects and explain the sorting rules that were used. Try out the sorting rules before the lesson, if possible, to make sure you have the appropriate features in the objects you are sorting.

DAY 1: LESSON 1**Answers**

1. to 3. The student should find at least three different ways of sorting the buttons or objects chosen. They could be sorted by size, shape, colour, number of holes, texture, or material of construction. Your student may have additional ways to sort.

DAY 1: LESSON 2**Answers**

- | | |
|-------------------------------|-------------------------------|
| 1. small buttons with 4 holes | 2. small buttons with 2 holes |
| 3. big buttons with 2 holes | 4. big buttons with 4 holes |

DAY 2: Collections are the topic of this day. The student learns how related objects can form a collection and sorts pictures of collections. It would be beneficial for your student to view any real collections you may have access to. For example, if someone you know has an insect collection or coin collection, take your student to see it. Discuss how the owner sorts and displays the collection. Your student begins to practise subtraction facts in the timed exercise today. You may want to review subtraction strategies with your student before you begin the timed exercise. If your student has difficulty, provide extra practice with flash cards, games, or computer programs. Assist the student in removing the "Subtraction Facts Graph" from the Appendix and filling in the number correct for Day 2. Post the chart in the student's work area.

DAY 2**Timed Exercise Answers:**

$$14 - 7 = 7 \quad 12 - 8 = 4 \quad 16 - 9 = 7 \quad 12 - 7 = 5$$

$$11 - 8 = 3 \quad 16 - 7 = 9 \quad 12 - 6 = 6 \quad 11 - 4 = 7$$

$$15 - 7 = 8 \quad 14 - 5 = 9 \quad 13 - 9 = 4 \quad 17 - 8 = 9$$

$$\begin{array}{r} 12 \\ - 5 \\ \hline 7 \end{array} \qquad \begin{array}{r} 8 \\ - 4 \\ \hline 4 \end{array} \qquad \begin{array}{r} 9 \\ - 2 \\ \hline 7 \end{array} \qquad \begin{array}{r} 13 \\ - 7 \\ \hline 6 \end{array}$$

$$\begin{array}{r} 15 \\ - 6 \\ \hline 9 \end{array} \qquad \begin{array}{r} 9 \\ - 4 \\ \hline 5 \end{array} \qquad \begin{array}{r} 17 \\ - 8 \\ \hline 9 \end{array} \qquad \begin{array}{r} 10 \\ - 6 \\ \hline 4 \end{array}$$

DAY 3: Your student will go on a pattern hunt to find patterns around your home or yard. Pasta, coins, and pictures are used to make linear patterns. Different ways of recording patterns are introduced. The student also extends or finds the missing element in a pattern.

DAY 3: LESSON 1

Answers

1. to 10. Your student should have made a list of objects from his or her home or yard that have patterns. This list may include such things as

- clothing
- drapes or curtains
- rugs
- ceramic tiles
- floor coverings
- wallpaper or borders
- vehicle patterns
- toy patterns

Any repeating design is acceptable.

DAY 3: LESSON 2

Answers

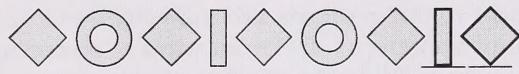
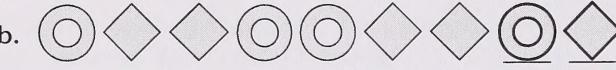
1. The student may have recorded the pattern using drawings, words, or symbols (such as a letter or number designation). All are acceptable.
2. The letter pattern should reflect the pattern that the student made.
3. The letter pattern should reflect the pattern that the student made.
4. a. ABC b. AAB
5. The pattern may be described using colour, words, or letter designations.

DAY 3: LESSON 3

Answers

1. a. 

b. 

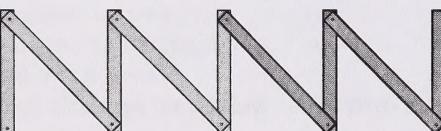
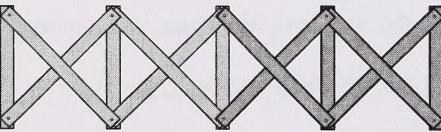
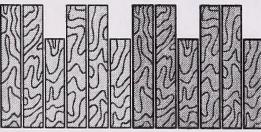
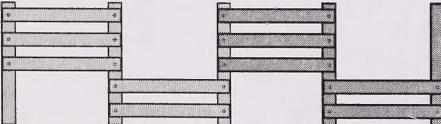
2. a. 
- b. 
- c. 

DAY 4: Fence and wall patterns are the topics for this day. The student starts to build and describe two-dimensional patterns as model fences and wall designs are created.

DAY 4: LESSON 1

Answers

1. The fence has one upright post then three boards going across.
2. The student should draw each fence and write a pattern rule. The pattern rule should describe the portion of the fence that repeats.

3. a. 
- b. 
- c. 
- d. 

DAY 4: LESSON 2**Answers**

The pattern is trapezoid, triangle, upside-down triangle, triangle. The student may also use the letter pattern ABCB to describe the pattern.

Timed Exercise Answers:

$$13 - 6 = \mathbf{7} \quad 12 - 8 = \mathbf{4} \quad 15 - 9 = \mathbf{6} \quad 11 - 6 = \mathbf{5}$$

$$10 - 8 = \mathbf{2} \quad 15 - 7 = \mathbf{8} \quad 11 - 7 = \mathbf{4} \quad 12 - 4 = \mathbf{8}$$

$$15 - 8 = \mathbf{7} \quad 14 - 7 = \mathbf{7} \quad 13 - 5 = \mathbf{8} \quad 16 - 8 = \mathbf{8}$$

$$\begin{array}{r} 11 \\ - 4 \\ \hline 7 \end{array} \qquad \begin{array}{r} 18 \\ - 9 \\ \hline 9 \end{array} \qquad \begin{array}{r} 10 \\ - 3 \\ \hline 7 \end{array} \qquad \begin{array}{r} 14 \\ - 6 \\ \hline 8 \end{array}$$

$$\begin{array}{r} 12 \\ - 5 \\ \hline 7 \end{array} \qquad \begin{array}{r} 17 \\ - 8 \\ \hline 9 \end{array} \qquad \begin{array}{r} 16 \\ - 7 \\ \hline 9 \end{array} \qquad \begin{array}{r} 11 \\ - 9 \\ \hline 2 \end{array}$$

DAY 5: Two-dimensional patterns are examined in this lesson. The student builds and describes more complicated patterns.

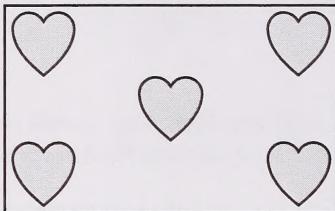
DAY 5: LESSON 1**Answers**

1. The student may describe the quilt by saying there is a star in every second square or that there are coloured and flowered triangles alternating with stars. Any sentence that accurately describes the quilt is acceptable.
2. The student may say that there is an ABC pattern or that the flowered and coloured squares alternate with the stars.
3. The answer will vary. The student may describe the pattern using shape or colour words. Words like edges, corners, and centre may be used to describe the position of shapes. Words like up and down, across, or at a slant may also be used to describe positions.
4. The student should be able to tell how the shapes or colours repeat and in which direction they repeat.

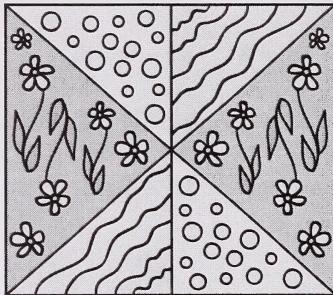
DAY 5: LESSON 2**Answers**

1. The student probably looked at the rest of the pattern and extended the pattern across and up and down to predict what was under the paper. The student may also mention looking at the centre, corners, or edges of the design.

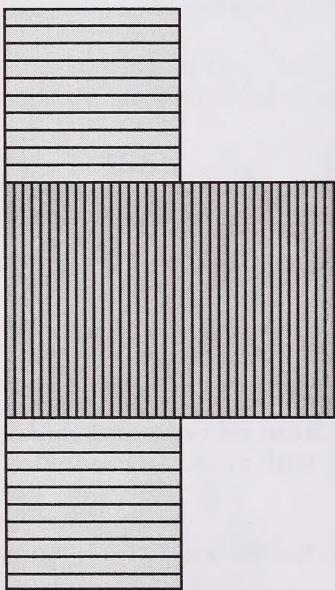
2. a.



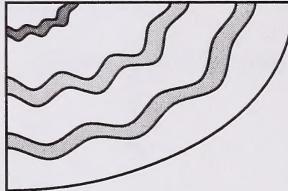
b.



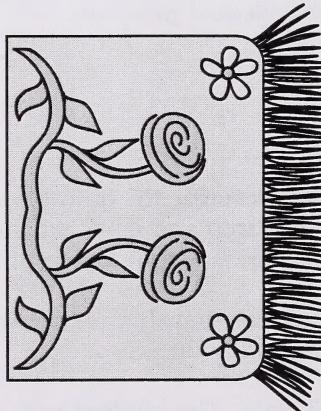
c.



d.



e.



DAY 6: In today's activities, the student uses patterns to solve word problems. The student is encouraged to develop his or her own strategy for solving these problems. An opportunity is provided for the student to make up some problems involving patterns for you and the teacher to solve.

DAY 6: LESSON 1

Answers

1. Luke has to find out what the 16th vehicle would be.
2. The student may suggest drawing the vehicles, assigning a letter or number to each type of vehicle, or using three different objects to represent the vehicles. The student may have other strategies as well.
3. The pattern rule is car, car, van, truck or AABC.
4. The student should show the pattern extended to 16 vehicles.
5. The 16th vehicle is a truck.
6. The student should indicate if the question has been answered and makes sense.
7.
 - a. The student has to find out how many of each colour of blocks would be used if the pattern is extended to 25 blocks long.
b. The pattern rule is red, blue, blue, green, green or ABBCC.
c. The student may suggest extending the pattern using blocks or cutouts and then counting how many of each colour there are. Some students may have other strategies, such as knowing there would be 5 repetitions of the pattern in 25 blocks. In this case, there would be $2 + 2 + 2 + 2 + 2$ blue and green blocks and $1 + 1 + 1 + 1 + 1$ red blocks.
d. The student should show a drawing of the pattern, a letter pattern, or a written notation for the pattern. Other methods may also be used.
e. There will be 5 red blocks, 10 blue blocks, and 10 green blocks in a pattern that is 25 blocks long.
f. The student should indicate whether the answer makes sense.

8. a. The student should write, draw, or give a letter representation of the problem that is 20 blocks long.

Example: ABBCABBCABBCABBCABBC

Other methods, such as counting by 4s or using repeated addition or multiplication, may also be used.

The 20th block will be red.

- b. Answers will vary. The student should write a problem based on pattern repetition.

DAY 7: Problem-solving activities are highlighted again today. The problems in this lesson are more challenging and require the student to think about number relationships. Provide guidance, if necessary, as your student works through these problems. Assist the student by timing the Subtraction Number Facts exercise and filling in the Subtraction Facts Graph.

DAY 7

Answers

1. a. The student has to find out how many blocks Sarah used in total when 40 triangle blocks are used.
- b. The student could solve the problem by making the pattern with blocks; drawing the pattern; or using letters, numbers, or words to represent the blocks. The student could also use the pattern and then addition to predict the answer.
- c. The pattern is trapezoid, triangle with one extra trapezoid at the end. The student may also say that there is an AB pattern with an extra A at the end.
- d. There is one more trapezoid used than triangles, or trapezoids = triangles + 1
- e. 41
- f. $40 + 41 = 81$
- g. Sarah used 81 blocks in all.
- h. The student should indicate whether the answer seems reasonable.

2. a. The student needs to find out how many triangle blocks will be needed if 31 diamond blocks are used.
- b. The student could solve the problem by drawing the pattern or by using letters, numbers, or words to represent the blocks. The student could also use the pattern and then addition to solve the problem.
- c. Students may have used a diagram or show the work mathematically. There must be 31 diamonds. One will be at the end.

$$31 - 1 = 30$$

For each diamond there are two triangles.

$$30 + 30 = 60 \text{ or } 30 \times 2 = 60$$

If Luke uses 31 diamonds, he will need 60 triangles.

- d. The student should indicate if the answer is reasonable.

Timed Exercise Answers:

$$14 - 6 = \mathbf{8} \quad 13 - 8 = \mathbf{5} \quad 16 - 9 = \mathbf{7} \quad 12 - 6 = \mathbf{6}$$

$$14 - 8 = \mathbf{6} \quad 14 - 7 = \mathbf{7} \quad 10 - 7 = \mathbf{3} \quad 13 - 4 = \mathbf{9}$$

$$17 - 8 = \mathbf{9} \quad 12 - 7 = \mathbf{5} \quad 13 - 5 = \mathbf{8} \quad 15 - 8 = \mathbf{7}$$

$$\begin{array}{r} 12 \\ - 4 \\ \hline 8 \end{array} \qquad \begin{array}{r} 17 \\ - 9 \\ \hline 8 \end{array} \qquad \begin{array}{r} 11 \\ - 3 \\ \hline 8 \end{array} \qquad \begin{array}{r} 15 \\ - 6 \\ \hline 9 \end{array}$$

$$\begin{array}{r} 11 \\ - 5 \\ \hline 6 \end{array} \qquad \begin{array}{r} 16 \\ - 8 \\ \hline 8 \end{array} \qquad \begin{array}{r} 15 \\ - 7 \\ \hline 8 \end{array} \qquad \begin{array}{r} 12 \\ - 9 \\ \hline 3 \end{array}$$

DAY 8: The student plots skip-counting patterns on a hundred chart in today's activities. The hundred chart allows children to visualize the patterns that numbers form. Practising skip counting and examining number patterns prepares the student for a better understanding of addition and multiplication. It also helps the student understand the relationships between numbers. Skip counting by 2s and 5s are reviewed.

DAY 8: LESSON 1

Answers

| | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 | 109 | 110 |
| 111 | 112 | 113 | 114 | 115 | 116 | 117 | 118 | 119 | 120 |
| 121 | 122 | 123 | 124 | 125 | 126 | 127 | 128 | 129 | 130 |
| 131 | 132 | 133 | 134 | 135 | 136 | 137 | 138 | 139 | 140 |
| 141 | 142 | 143 | 144 | 145 | 146 | 147 | 148 | 149 | 150 |
| 151 | 152 | 153 | 154 | 155 | 156 | 157 | 158 | 159 | 160 |
| 161 | 162 | 163 | 164 | 165 | 166 | 167 | 168 | 169 | 170 |
| 171 | 172 | 173 | 174 | 175 | 176 | 177 | 178 | 179 | 180 |
| 181 | 182 | 183 | 184 | 185 | 186 | 187 | 188 | 189 | 190 |
| 191 | 192 | 193 | 194 | 195 | 196 | 197 | 198 | 199 | 200 |

1. The student could say that every second column is coloured; that the second, fourth, sixth, eighth, and tenth columns are coloured; or that all the even numbers are coloured.
2. The numbers are even.
3. a. 134 **136** 138 140 142 144
b. 168 **170** 172 174 176 178
c. 190 **192** 194 196 198 200
4. The pattern would remain the same. Only the first digit in each number would be different.

6.

| | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 601 | 602 | 603 | 604 | 605 | 606 | 607 | 608 | 609 | 610 |
| 611 | 612 | 613 | 614 | 615 | 616 | 617 | 618 | 619 | 620 |
| 621 | 622 | 623 | 624 | 625 | 626 | 627 | 628 | 629 | 630 |
| 631 | 632 | 633 | 634 | 635 | 636 | 637 | 638 | 639 | 640 |
| 641 | 642 | 643 | 644 | 645 | 646 | 647 | 648 | 649 | 650 |
| 651 | 652 | 653 | 654 | 655 | 656 | 657 | 658 | 659 | 660 |
| 661 | 662 | 663 | 664 | 665 | 666 | 667 | 668 | 669 | 670 |
| 671 | 672 | 673 | 674 | 675 | 676 | 677 | 678 | 679 | 680 |
| 681 | 682 | 683 | 684 | 685 | 686 | 687 | 688 | 689 | 690 |
| 691 | 692 | 693 | 694 | 695 | 696 | 697 | 698 | 699 | 700 |

7. The student could say that every second column is shaded; that the first, third, fifth, seventh, and ninth columns are shaded; or that all the odd numbers are shaded.
8. The numbers are odd.
9. The patterns would remain the same, only the first digit in each number would change.

10. a. 551 **553** 555 557 559 561
 b. 367 **369** 371 373 375 377
 c. 792 **794** 796 798 800 802
 d. 493 **495** 497 499 501 503

DAY 8: LESSON 2

Answers

1. The columns with numbers ending in 5 or 0 are covered.
2. a. 45 **50** 55 60 65 70
 b. 230 **235** 240 245 250 255
 c. 585 **590** 595 600 605 610

3. The columns with numbers ending in 3 and 8 are covered.
 4. The digits 3 and 8 are at the end of all the numbers.
 5. The columns with numbers ending in 4 and 9 are covered.
 6. The digits 4 or 9 are at the end of the numbers.
7. a. 28 **33** 38 43 48 53
 b. 133 **138** 143 148 153 158
 c. 334 **339** 344 349 354 359
 d. 572 577 **582** 587 592 597

DAY 9: Skip counting by 10s and 100s are discussed in this lesson. The student learns to count from random numbers as well as from multiples of 10 or 100. Assignment Booklet 3A should be completed and submitted at the end of today's lesson. Remember to complete the Home Instructor's Checklist.

DAY 9: LESSON 1

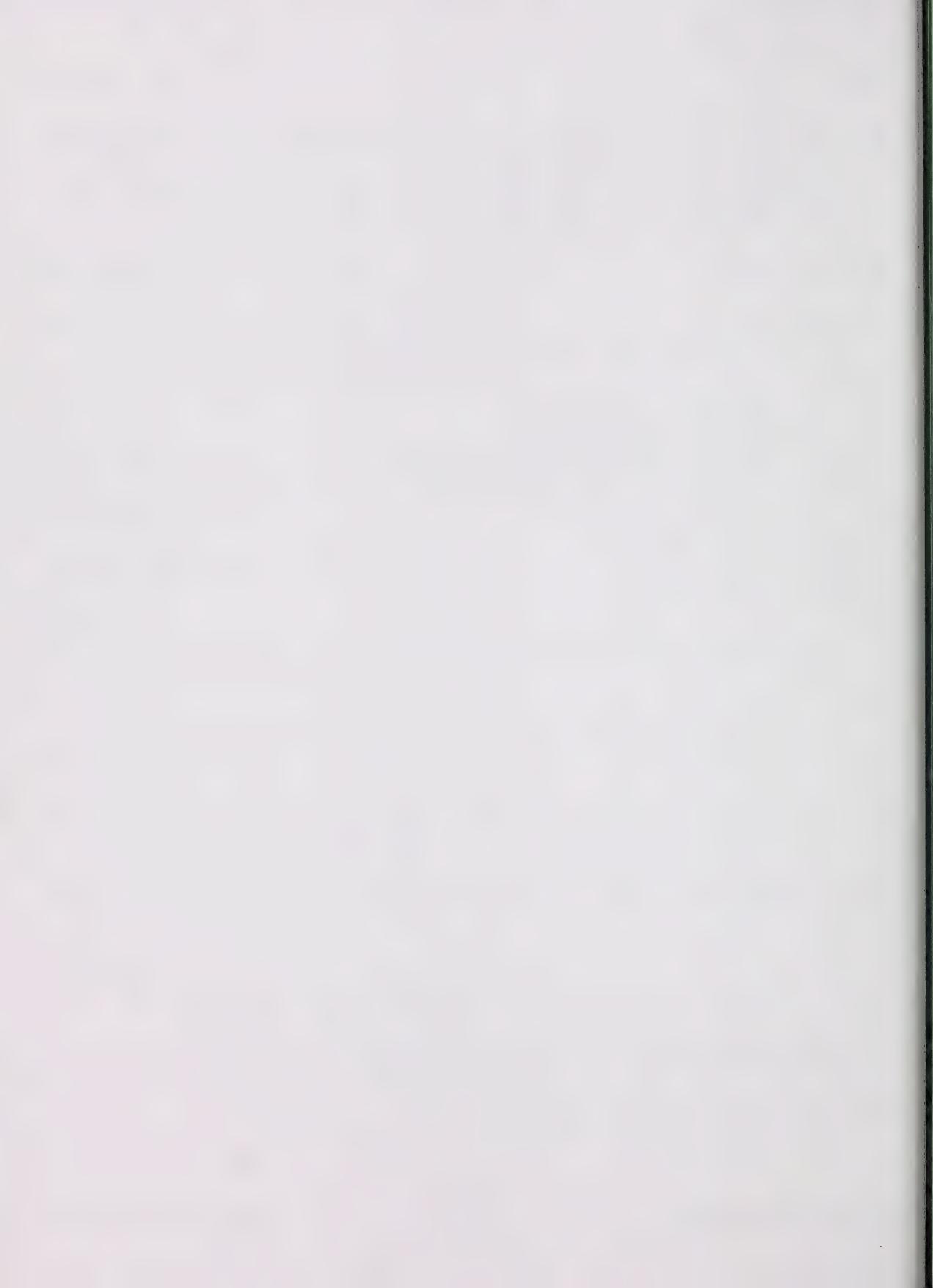
Answers

1. The last column of the hundred chart is covered. The student may also say all the numbers with 0 are covered.
 2. Each number ends with 0.
 3. The first digit increases by one each time.
4. a. 30 **40** 50 60 70 80
 b. 250 260 **270** 280 290 300
 c. 680 690 **700** 710 720 730
5. The third column was covered. The student may also say that all the numbers with 3 at the end were covered.
 6. Each number ended in 3.
 7. The first digit increases by one each time.
 8. Predictions may vary. Most students will predict that the sixth column will be covered or that all the numbers ending in 6 will be covered.
 9. When you add 10 or count on by 10, the tens digit will increase by one and the ones digit will stay the same.

10. a. 18 **28** 38 48 58 68
b. 57 **67** 77 87 97 107
c. 358 **368** 378 388 398 408
d. 727 **737** 747 757 767 777
e. 452 **462** 472 482 492 502

DAY 9: LESSON 2**Answers**

1. 100 200 300 400 500 600 700 800 900 1000
2. a. 382 **482** 582 682 782 882
b. 139 **239** 339 439 539 639
c. 471 **571** 671 771 871 971
d. 203 **303** 403 503 603 703
3. a. 78 b. 57
c. 460 d. 954
e. 20 f. 547
g. 221 h. 445
i. 798 j. 512



ASSIGNMENT BOOKLET 3A

Grade Three Mathematics
Module 3: Days 1–9

Home Instructor's Comments and Questions

FOR SCHOOL USE ONLY

Assigned Teacher:

Date Assignment Received:

Grading:

Additional Information:

FOR HOME INSTRUCTOR USE
(if label is missing or incorrect)

Student File Number:

Date Submitted:

Apply Module Label Here

Name

Address

Postal Code

*Please verify that preprinted label is for
correct course and module.*

Teacher's Comments

Teacher's Signature

Home Instructor: Keep this sheet when it is returned to you as a record of the student's progress.

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- Has your work been reread to be sure the spelling and details are correct?
- Is the record form filled out and the correct module label attached?

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GRADE THREE MATHEMATICS: MODULE 3

PATTERNS EVERWHERE

Assignment Booklet 3A



Learning
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Grade Three Mathematics
Module 3: Patterns Everywhere
Assignment Booklet 3A
Learning Technologies Branch

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| Teachers | ✓ |
| Administrators | |
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1. Sort the pictures into four groups using at least two features. Label each box with the sorting rule you used. Glue the sorted pictures under the correct label. You may not need all the pictures, depending on what sorting rules you choose.

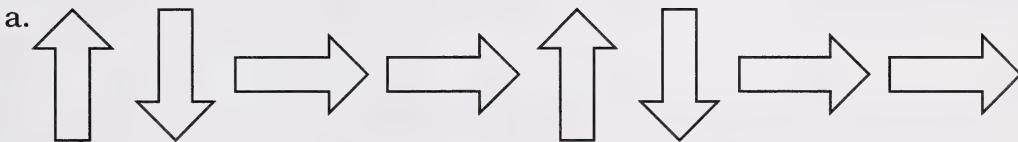
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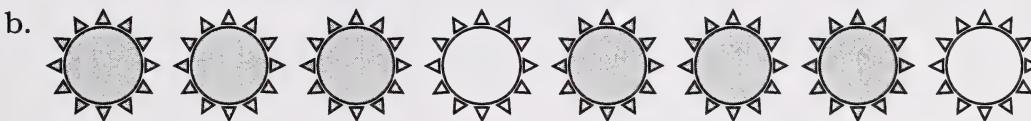
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2. Describe the pattern below in at least two different ways.



3. Write a letter pattern for each of the picture patterns below.

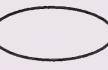




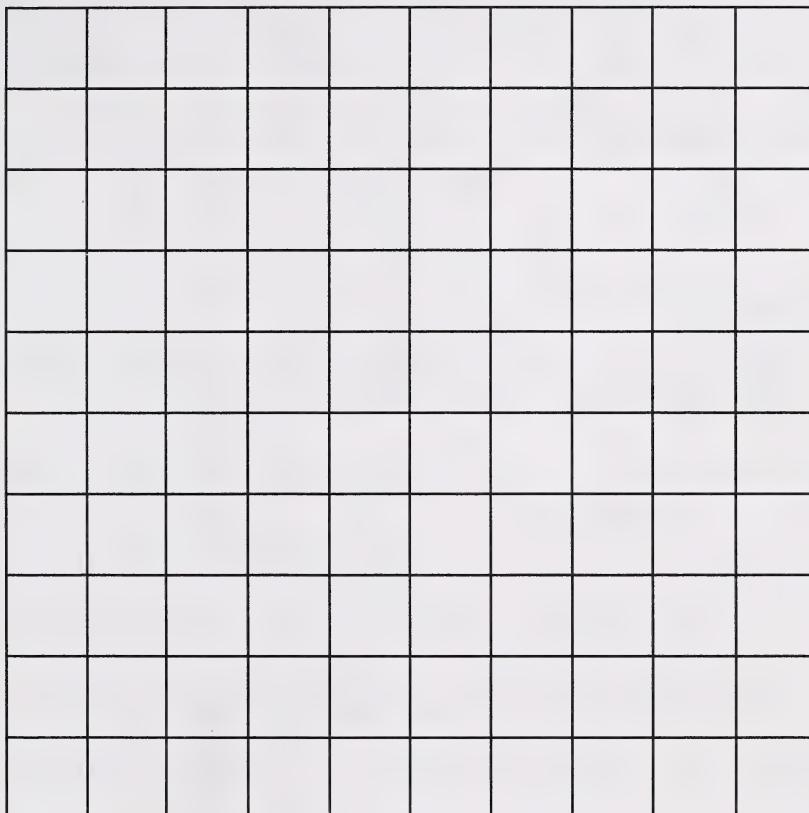


4. Draw your own pattern, and write a letter pattern for it.

5. Draw the next two pictures in the patterns below.

- a.        _____
- b.        _____
- c.       _____
- d.        _____

1. Make a two-dimensional quilt design on the grid below.



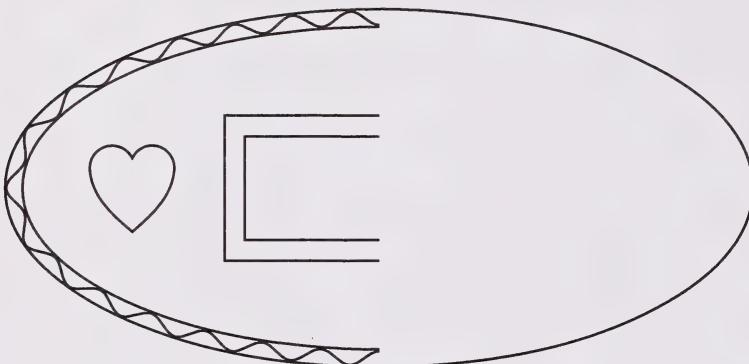
2. Tell how your pattern repeats.

3. Draw the missing part of each pattern.

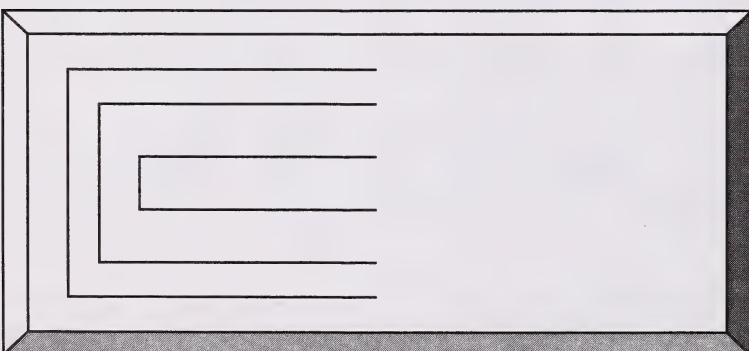
a.



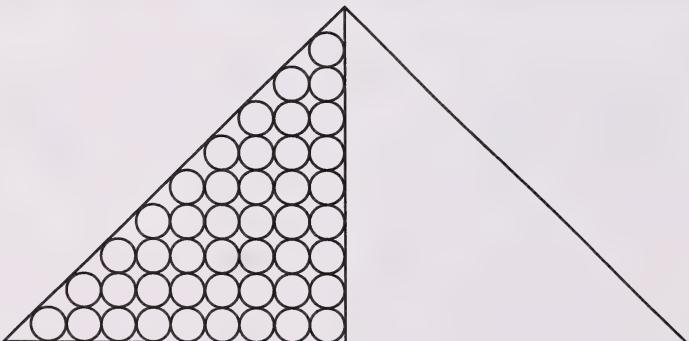
b.

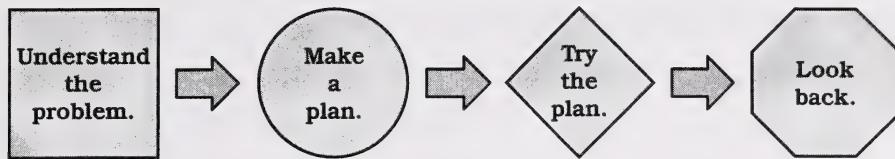


c.



d.

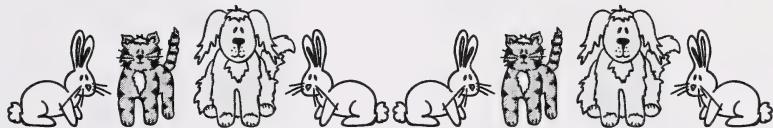




Use the problem-solving steps and your favourite strategies to solve each problem. Show your work. Write your answer in a sentence.

1. Sarah was painting a border on her bedroom wall.

The border looked like this:



What would the 18th animal in the pattern be?

2.



Luke made this pattern with pattern blocks. He wants to extend it. When he has used 5 square blocks, how many triangle blocks will he have used?

3. Write a pattern problem for your teacher to solve.

Use what you know about patterns to solve the problem below.

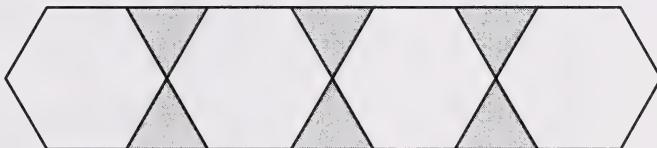
Luke made another pattern that looked like this.



As he added more blocks, it looked like this.



As he added more blocks, it looked like this.



Luke kept building this design and used 26 hexagon blocks. How many blocks did he use in total?

Understand
the
problem.

1. What do you have to find out? _____

Make
a
plan.

2. How could you solve this problem? _____

Try
the
plan.

3. a. Solve the problem. Show your work.

- b. Write a sentence to answer the question in the problem.

Look
back.

4. Reread the problem. Does your sentence answer the question that is asked in the problem? Does the answer make sense?

1. Count by 5s from 2. Colour the numbers on the hundred chart below.

| | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|-----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
| 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |
| 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 |
| 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 |
| 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 |
| 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 |
| 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |

2. What pattern do you notice? _____
3. What pattern would you see if the chart showed 501 to 600? _____
4. Journal Entry

How can you use a hundred chart to help you skip count numbers over 100?

5. Count by 2s starting with each number below. What number comes next?

a. 438 _____

b. 621 _____

c. 875 _____

d. 296 _____

e. 134 _____

6. Count by 5s. What number comes next?

a. 320 _____

b. 700 _____

c. 934 _____

d. 651 _____

e. 583 _____

1. Make a prediction. What pattern would you see on a hundred chart if you counted by 10 starting at 8.

2. Count by 10s starting with each number below. What numbers come next?

a. 45 _____

b. 137 _____

c. 605 _____

d. 824 _____

3. Count by 100s. What numbers come next?

a. 471 _____

b. 25 _____

c. 389 _____

d. 190 _____

4. Use what you know about number patterns to add the number sentences in your head.

a. $56 + 2 + 2 =$ _____

b. $235 + 5 =$ _____

c. $487 + 10 =$ _____

d. $89 + 10 + 10 =$ _____

e. $538 + 100 =$ _____

f. $34 + 100 + 100 =$ _____

Timed exercise: 2 minutes

Ask your Home Instructor to time you for 2 minutes. Do as many questions as you can in two minutes. Write how many you completed.

$14 - 5 = \underline{\hspace{2cm}}$ $13 - 7 = \underline{\hspace{2cm}}$ $16 - 8 = \underline{\hspace{2cm}}$ $12 - 7 = \underline{\hspace{2cm}}$

$14 - 4 = \underline{\hspace{2cm}}$ $14 - 8 = \underline{\hspace{2cm}}$ $10 - 4 = \underline{\hspace{2cm}}$ $13 - 5 = \underline{\hspace{2cm}}$

$17 - 8 = \underline{\hspace{2cm}}$ $12 - 9 = \underline{\hspace{2cm}}$ $13 - 6 = \underline{\hspace{2cm}}$ $15 - 7 = \underline{\hspace{2cm}}$

| | | | |
|-------|-------|-------|-------|
| 12 | 17 | 11 | 15 |
| - 6 | - 8 | - 5 | - 9 |
| <hr/> | <hr/> | <hr/> | <hr/> |

| | | | |
|-------|-------|-------|-------|
| 11 | 16 | 15 | 12 |
| - 7 | - 9 | - 6 | - 3 |
| <hr/> | <hr/> | <hr/> | <hr/> |

| | |
|-------------------------|--|
| Number completed | |
| Number correct | |

STUDENT'S CHECKLIST
MODULE 3: DAYS 1 TO 9

| I can ... | Put a check mark beside the things you can do. |
|--|--|
| sort objects and explain my sorting rule | |
| make up a rule to tell about a pattern | |
| extend a pattern | |
| use a pattern to help me solve a problem | |
| count by 2s, 5s, 10s, and 100s | |

STUDENT'S COMMENTS

Did you have difficulty with any of the activities so far? Explain.

My favourite activity in this part of the module was _____

HOME INSTRUCTOR'S CHECKLIST

Check **yes** or **not yet** for each question.

Can the student do the following?

- sort objects or pictures using two or more attributes yes not yet
- create and explain a rule for sorting yes not yet
- recognize and describe both a linear and two-dimensional pattern yes not yet
- state a rule to describe a pattern yes not yet
- use a pattern to solve word problems yes not yet
- count by 2s, 5s, 10s, and 100s from a random starting point yes not yet
- use counting patterns to solve addition questions yes not yet

HOME INSTRUCTOR'S COMMENTS

GRADE THREE MATHEMATICS: ASSIGNMENT BOOKLET 3A ITEMS FOR MAILING

In the box to the left of the listed items, please check each item as you include it for mailing to the teacher.

DAY 2

- Sports Cards Sorting pages
- Collections Sorting pages

DAY 4

- Wall designs with pattern rules page

DAY 5

- Pattern block design on the Triangle Grid

DAY 9

- Assignment Booklet 3A

